



PTO/SB/21 (08-03)

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**TRANSMITTAL
FORM**

(to be used for all correspondence after initial filing)

	Application Number	10/735,110
	Filing Date	December 12, 2003
	First Named Inventor	Pawan K. Nimmakayala
	Art Unit	Unassigned
	Examiner Name	Unassigned
Total Number of Pages in This Submission	Attorney Docket Number	P122/MII-94-69v18

ENCLOSURES (Check all that apply)

<input type="checkbox"/> Fee Transmittal Form	<input type="checkbox"/> Drawing(s)	<input type="checkbox"/> After Allowance communication to Technology Center (TC)
<input type="checkbox"/> Fee Attached	<input type="checkbox"/> Licensing-related Papers	<input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences
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<input checked="" type="checkbox"/> Information Disclosure Statement	<input type="checkbox"/> CD, Number of CD(s) _____	Forty (40) References
<input type="checkbox"/> Certified Copy of Priority Document(s)	Remarks	Return Receipt Postcard to Kenneth Brooks
<input type="checkbox"/> Response to Missing Parts/Incomplete Application		
<input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Law Office of Kenneth C. Brooks
Signature	<i>Kenneth C. Brooks</i>
Date	3/2/04

CERTIFICATE OF TRANSMISSION/MAILING

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Typed or printed name	Alexis Sheffield		
Signature	<i>Alexis Sheffield</i>	Date	March 2, 2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Nimmakayala et al.

PATENT APPLICATION

Serial No.: 10/735,110

Group Art Unit: Unassigned

Filing Date: December 12, 2003

Examiner: Unassigned

For: MAGNIFICATION CORRECTION EMPLOYING OUT-OF-PLANE DISTORTION
OF A SUBSTRATE.

INFORMATION DISCLOSURE STATEMENT

Commissioner
for Patents
Alexandria, VA 22313-1450

Sir:

The following information is submitted in compliance with Applicants' duty of disclosure under 37 C.F.R. § 1.56. Form PTO-1449 and a copy of each reference recited below accompanies this document. It is respectfully requested that the cited information be expressly considered during the prosecution of this application, and the references be made of record therein and appear among the "references cited" on any patent to issue therefrom.

ISSUED PATENTS

<u>Patent Number</u>	<u>Inventor</u>	<u>Grant Date</u>
4,326,805	Feldman et al.	04/27/1982
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6,309,580	Chou	10/30/2001
6,518,168	Clem et al.	02/11/2003

OTHER PATENT DOCUMENTS

09/698,317	Choi et al.	10/27/2000
09/907,512	Sreenivasan et al.	07/16/2001
10/616,294	Choi et al.	07/09/2003

FOREIGN PATENT DOCUMENTS

<u>Document No.</u>	<u>Inventor</u>	<u>Pub. Date</u>
DE 2800476	Lamprecht et al.	07-13-1978
JP 1-196749	Matsumoto et al.	08-08-1989
WO 01/79592	Hallberg et al.	10-25-2001
WO 01/79933	Heidari	10-25-2001
WO 01/90816	Heidari	11-29-2001

NON-PATENT DOCUMENTS

Chou et al. "Imprint of Sub-25 nm Vias and Trenches in Polymers," *Applied Physics Letters*, 67(21), pp. 3114-3116, 1995.

Chou et al. "Imprint Lithography with 25-Nanometer Resolution," *Science*, vol. 272, pp. 85-87, Apr. 5, 1996.

Haisma, J. et al. "Mold-Assisted Nanolithography: A Process for Reliable Pattern Replication," *Journal of Vacuum Science and Technology*, vol. 14, pp. 4124-4128, 1996.

Chou et al. "Imprint Lithography with Sub-10 nm Feature Size and High Throughput", *Microelectronic Engineering* 35, pp. 237-240, 1997.

Feldman et al., "Wafer Chuck For Magnification Correction in X-Ray Lithography," *American Vacuum Society*, pp.3476-3479, 1998.

Scheer, H.C. et al. "Problems of Nanoimprinting Technique for Nanometer Scale Pattern Definition," *Journal of Vacuum Science and Technology*, vol. 16, pp. 3917-3921, 1998.

Colburn, M. et al. "Step and Flash Imprint Lithography: New Approach to High-Resolution Patterning," *Proc. of SPIE*, vol. 3676, pp. 379-389, 1999.

Chou, Stephen et al. "Lithographically-induced Self Assembly of Periodic Micropillar Arrays," *Journal of Vacuum Science and Technology*, vol. 17, pp. 3197-3202, 1999.

Ruchhoeft, P. et al. "Patterning Curved Surfaces: Template Generation by Ion Beam Proximity Lithography and Relief Transfer by Step and Flash Imprint Lithography," *Journal of Vacuum Science and Technology*, vol. 17, pp. 2965-2982, 1999.

Choi, B.J. et al. "Design of Orientation Stages for Step and Flash Imprint Lithography," *Precision Engineering*, vol. 25, pp. 192-199, 2001.

Chou. "Nanoimprint Lithography and Lithographically Induced Self-Assembly," *MRS Bulletin*, pp. 512-517, July 2001.

CERTIFICATE OF MAILING

Respectfully Submitted,
I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in a package addressed to: MAIL STOP PATENT APPLICATION, Commissioner for Patents, Alexandria, VA 22313-1450

Signed: Alexis Sheffield
Typed Name: Alexis Sheffield
Date: March 2, 2004

Respectfully,



Kenneth C. Brooks
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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

1

of

4

Complete if Known

Application Number

10/735.110

Filing Date

12/12/2003

First Named Inventor

Nimmakavala et al.

Group Art Unit

Unassigned

Examiner Name

Unassigned

Attorney Docket Number

P122/MII-94-69V18

U.S. PATENT DOCUMENTS

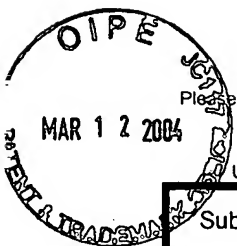
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Substitute for form 1449B/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)				Complete if Known	
				Application Number	10/735,110
				Filing Date	12/12/2003
				First Named Inventor	Nimmakayala et al.
				Group Art Unit	Unassigned
				Examiner Name	Unassigned
Sheet	3	of	4	Attorney Docket Number	P122/MII-94-69V18

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite, No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²
	B27	CHOU et al., "Imprint of Sub-25 nm Vias and Trenches in Polymers," Applied Physics Letters, November 20, 1995, pp. 3114-3116, vol. 67(21).	
	B28	CHOU et al., "Imprint Lithography with 25-Nanometer Resolution," Science, Apr. 5, 1996, pp. 85-87, vol. 272.	
	B29	HAISMA et al., "Mold-Assisted Nanolithography: A Process for Reliable Pattern Replication," Journal of Vacuum Science and Technology, Nov/Dec 1996, pp. 4124-4128, vol. B 14(6).	
	B30	CHOU et al., "Imprint Lithography with Sub-10nm Feature Size and High Throughput," Microelectronic Engineering, 1997, pp. 237-240, vol. 35.	
	B31	FELDMAN et al., "Wafer chuck for magnification correction in x-ray lithography," American Vacuum Society, 1998, pp. 3476-3479.	
	B32	SCHEER et al., "Problems of the Nanoimprinting Technique for Nanometer Scale Pattern Definition," Journal of Vacuum Science and Technology, Nov/Dec 1998, pp. 3917-3921, vol. B 16(6).	
	B33	COLBURN. et al., "Step and Flash Imprint Lithography: A New Approach to High-Resolution Patterning", Proc. of SPIE, 1999, pp. 379-389, vol. 3676.	
	B34	CHOU et al., "Lithographically-Induced Self Assembly of Periodic Polymer Micropillar Arrays," Journal of Vacuum Science and Technology, Nov/Dec 1999, pp. 3197-3202, vol. B 17(6).	
	B35	RUCHHOEFT et al., "Patterning Curved Surfaces: Template Generation by Ion Beam Proximity Lithography and Relief Transfer by Step and Flash Imprint Lithography," Journal of Vacuum Science and Technology, 1999, pp. 2965-2982, vol. 17.	
	B36	CHOI et al., "Design of Orientation Stages for Step and Flash Imprint Lithography," Precision Engineering, Journal of the International Societies for Precision Engineering and Nanotechnology, 2001, pp. 192-199, vol. 25.	
	B37	CHOU, "Nanoimprint Lithography and Lithographically Induced Self-Assembly," MRS Bulletin, July 2001, pp. 512-517.	

Examiner Signature		Date Considered	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 4 of 4

Complete if Known

Application Number	10/735,110
Filing Date	12/12/2003
First Named Inventor	Nimmakayala et al.
Group Art Unit	Unassigned
Examiner Name	Unassigned
Attorney Docket Number	P122/MII-94-69V18

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite, No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
	B38	CHOI et al., "High Precision Orientation Alignment and Gap Control Stages for Imprint Lithography Processes," U.S. Patent Application 09/698,317, Filed with USPTO on October 27, 2000.	
	B39	SREENIVASAN et al., "High-Resolution Overlay Alignment Methods and Systems for Imprint Lithography," U.S. Patent Application 09/907,512, Filed with USPTO on July 16, 2001.	
	B40	CHOI et al., "Systems For Magnification And Distortion Correction For Imprint Lithography Processes," U.S. Patent Application 10/616,294, Filed with USPTO on July 9, 2003.	

Examiner Signature		Date Considered	
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